

WFO Jackson, Mississippi

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:

MONTH YEAR
October 2012

TO: Hydrometeorological Information Center, W/OH2
NOAA / National Weather Service
1325 East West Highway, Room 7230
Silver Spring, MD 20910-3283

SIGNATURE

Alan E. Gerard, Meteorologist In-Charge

DATE

11/9/2012

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☒ An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

The month of October was fairly quiet with the exception of a severe weather event on the 17th that brought damaging wind, hail and 11 tornadoes to the Hydrologic Service Area (HSA). Temperatures for the month were below normal across the HSA. Temperatures ranged from -1.5 degrees below normal at Jackson, MS to -3.8 degrees below normal at Tallulah/Vicksburg Airport. Rainfall was below normal throughout most of the region. Rainfall ranged from 1.15 inches below normal at Meridian, MS to 3.96 inches below normal at Vicksburg/Tallulah.

The month began with a low pressure system over northeast portions of the HSA. Some flooding lingered across North Central Mississippi early on the 1st due to heavy rainfall from the evening of the 31st. From 1.00 to 2.00 inches of rainfall fell across northeast portions of the HSA during the early hours of the 1st while only 0.50 inch or less fell across remaining areas of North Mississippi. As high pressure built into the region on the 1st and 2nd, some light showers were noted across southern portions of the HSA. High pressure and fair skies became the rule through the 4th. Another cold front crossed the region from the 5th into the 6th. Surface high pressure pushed into the region on the 6th; however, some rain showers from 0.50 inch or less fell across our most northern counties as upper level disturbances moved across this area. High pressure remained in control of the weather through the 12th. High pressure moved eastward allowing warm, moist air to return to the region. Another cold front pushed through the HSA from the 14th into the 15th. Rainfall from this front ranged from widespread 0.50 to 2.00 inches north of I-20 to scattered amounts from 0.25 to 1.50 inches south of I-20. High pressure built into the HSA on the 15th bringing a little cooler and drier air.

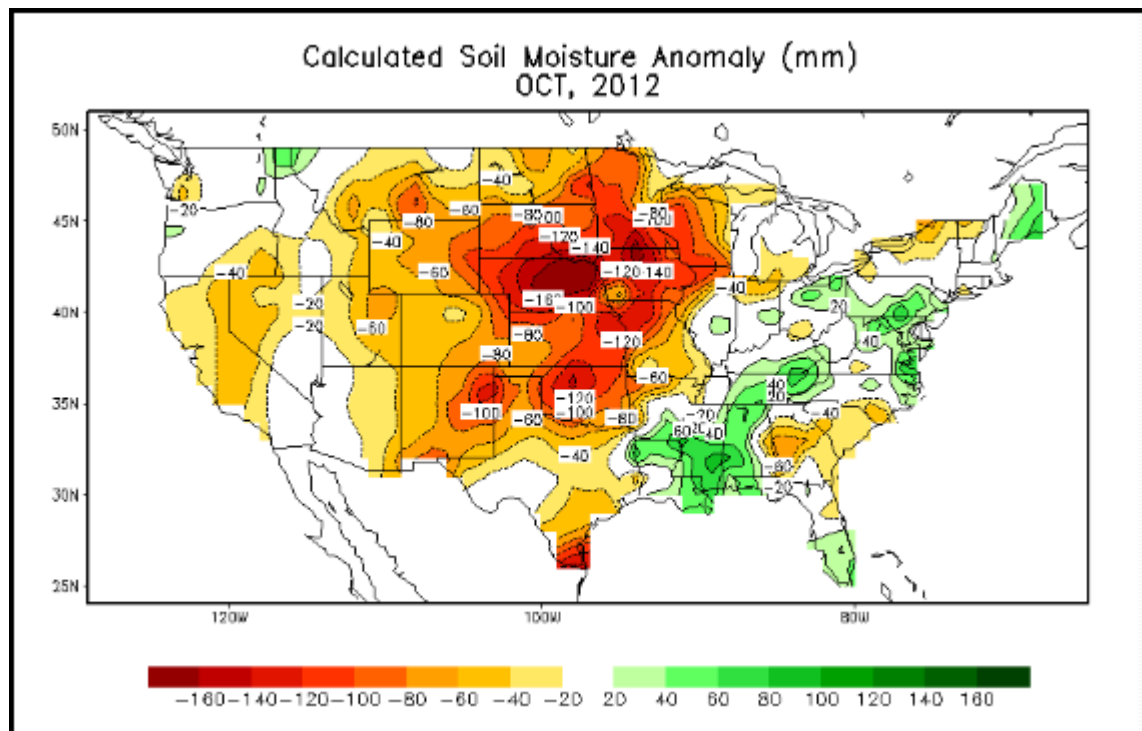
The high impact weather event of the month came on the evening of the 17th and the early morning hours of the 18th. An unseasonably strong cold front caused a regional severe weather outbreak. The majority of the severe weather stayed north of I-20. Eleven tornadoes were confirmed over North and Central Mississippi. This tied the most to occur in an October severe weather event in the state of Mississippi. Heavy rainfall from 0.50 to 3.00

inches occurred in lines from northwest to southeast along the heaviest thunderstorm cells. Some areas between the heavy thunderstorms had little to no rainfall. High pressure moved into the area from the 18th to 21st bringing delightfully cool conditions to the HSA.

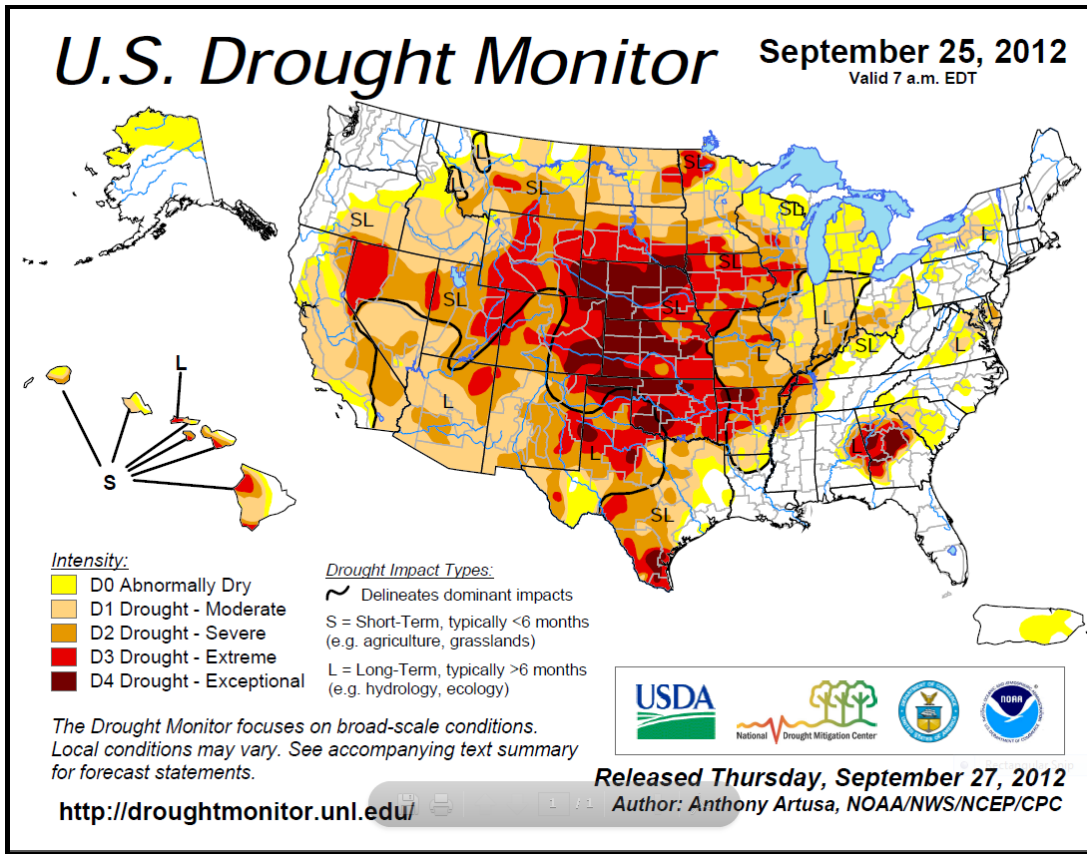
High pressure shifted eastward allowing a warm up and increase in humidity. It remained in control through much of the 25th. A strong cold front pushed through the region on the 26th bringing very light rainfall mostly to our western LA parishes and northwestern counties. Mostly cloudy and much colder conditions prevailed across the region on the 27th as high pressure began to push in. Clearing skies and cold temperatures prevailed on the 28th. High pressure and cool to cold temperatures remained across the HSA until the end of the month.

River and Soil Conditions...

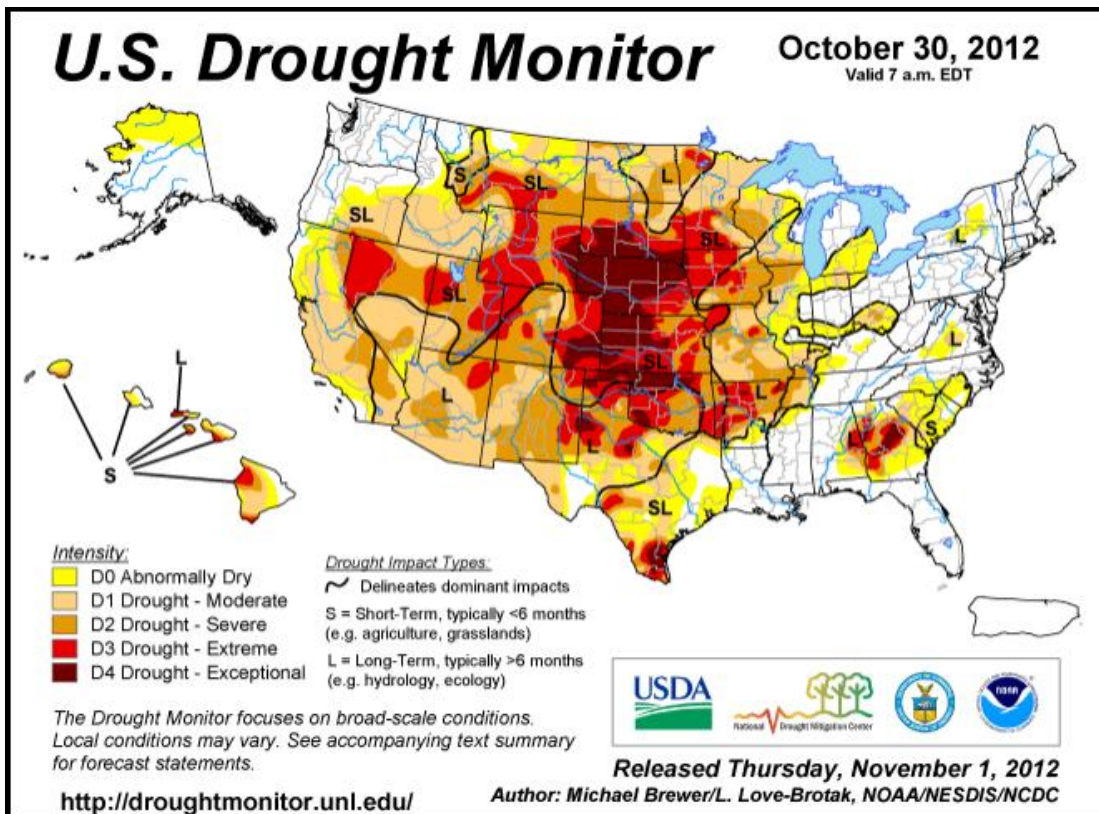
Soil Moisture Map:



Drought Comparison to prior month:



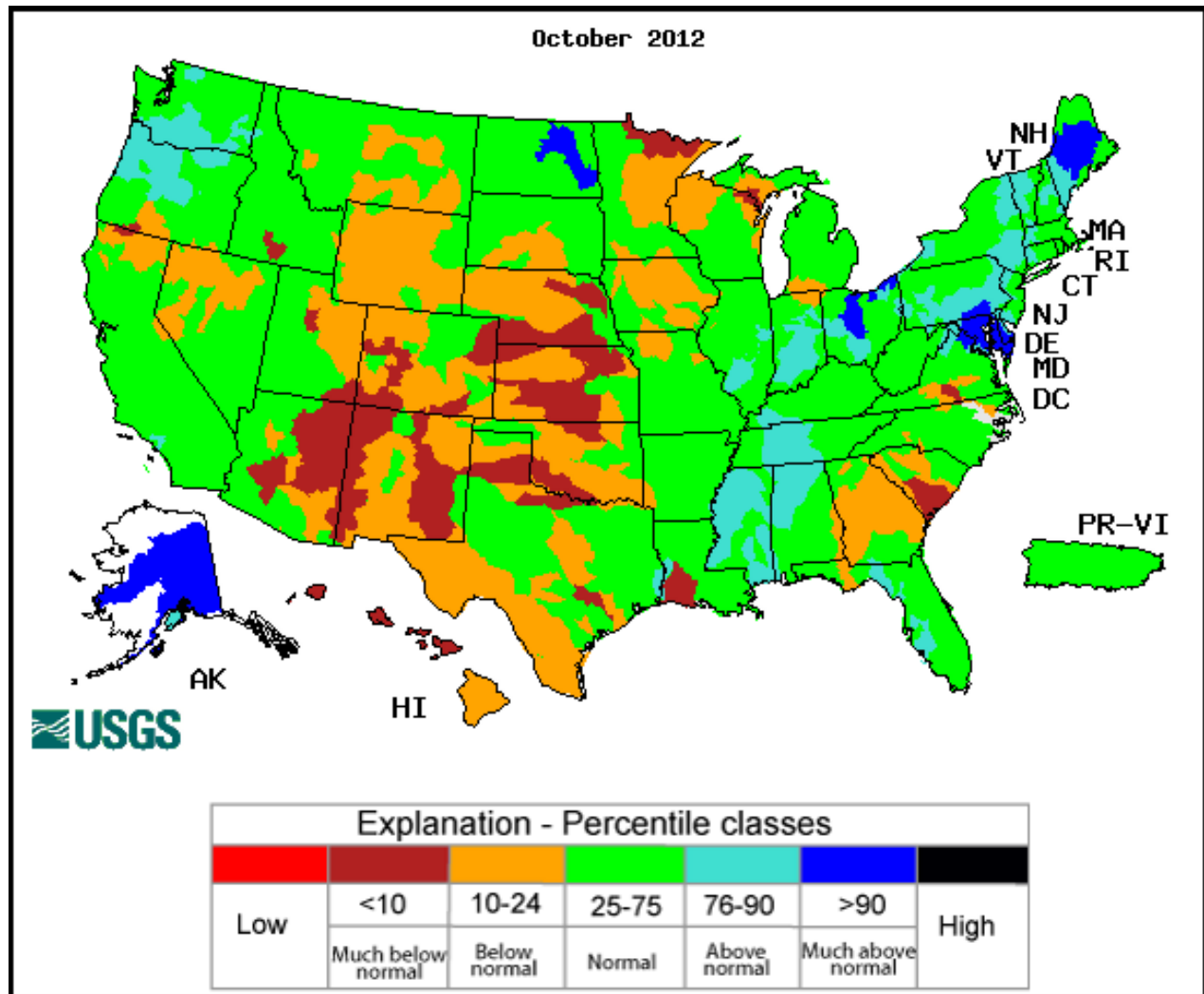
September 25, 2012



October 30th, 2012

Streamflow:

The United States Geological Survey's (USGS) October 2012 river streamflow records were compared with all historical October streamflow records. Much above normal streamflow was observed across the Big Black, Yazoo and much of the Pascagoula River Systems. Normal streamflow was reported along the Pearl River and portions of the Tombigbee and Pascagoula River Systems. Also, streamflow in Southeast Arkansas and Northeast Louisiana was near normal.



October Streamflow

River Conditions and flood potential:

No river flooding was reported during the month. Rivers across the HSA had only minor rises reported during the month.

Stages along the Mississippi River continued to remain well below normal levels.

Temperatures have equal chances of being below or above normal across the HSA over the next 3 months while rainfall is expected to be above normal across Southeast Mississippi while the remainder of the HSA has equal chances of being below or above normal. Based on current soil moisture, streamflow, and the 3 month weather outlooks, flood potentials are as follows:

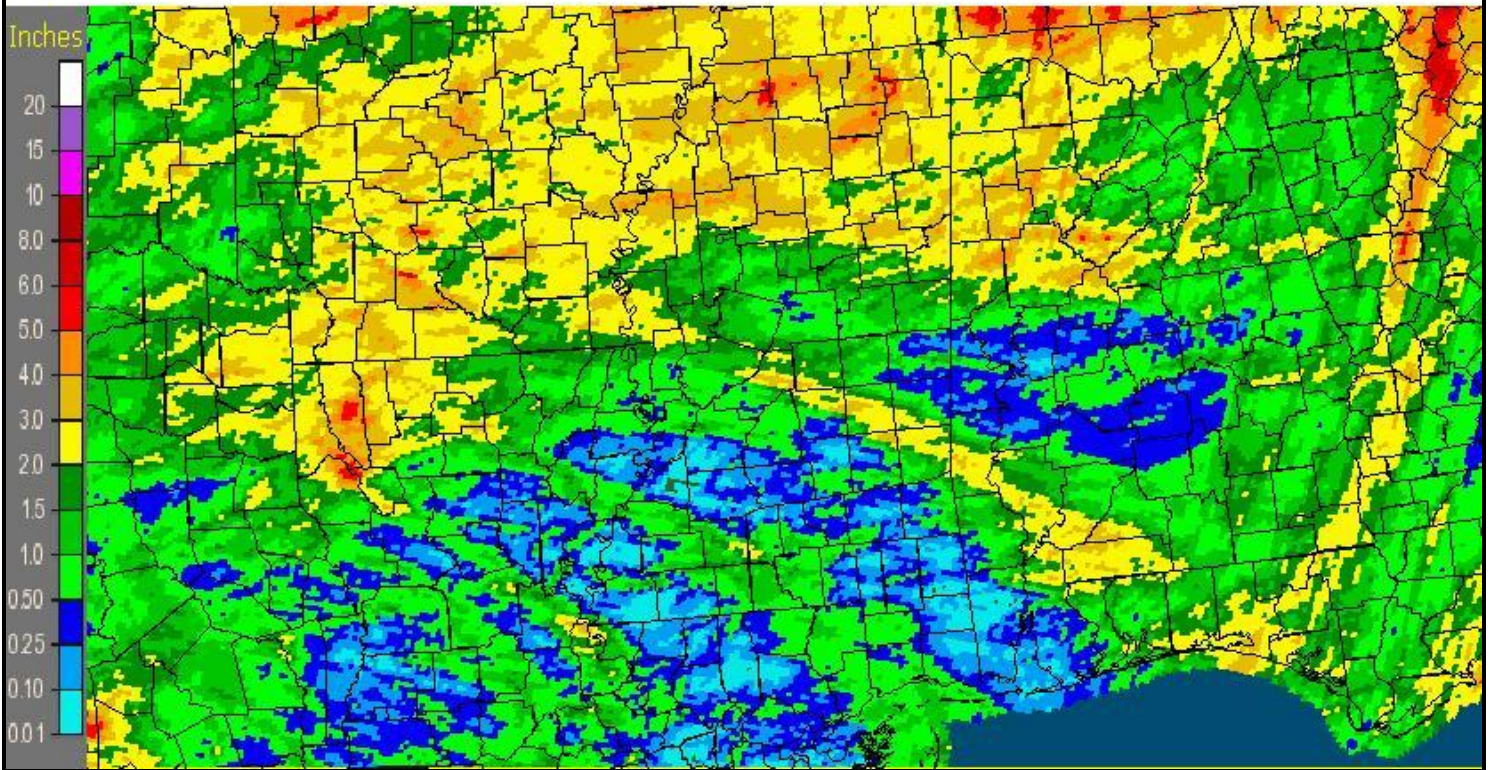
<i>Pearl River System:</i>	Average to above average.
<i>Yazoo River System:</i>	Average.
<i>Big Black River System:</i>	Average.
<i>Homochitto River System:</i>	Average.
<i>Pascagoula River System:</i>	Above average.
<i>Northeast LA and Southeast AR:</i>	Average.
<i>Tombigbee River System:</i>	Average.
<i>Mississippi River:</i>	Average.

Rainfall for the month of October:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on September 30th until 7 am on October 31st were: 7.91 inches at Belzoni, MS; 7.40 inches at Eudora, AR; 7.38 inches at Grenada, MS; and 6.07 inches at Portland, AR and Eupora, MS.

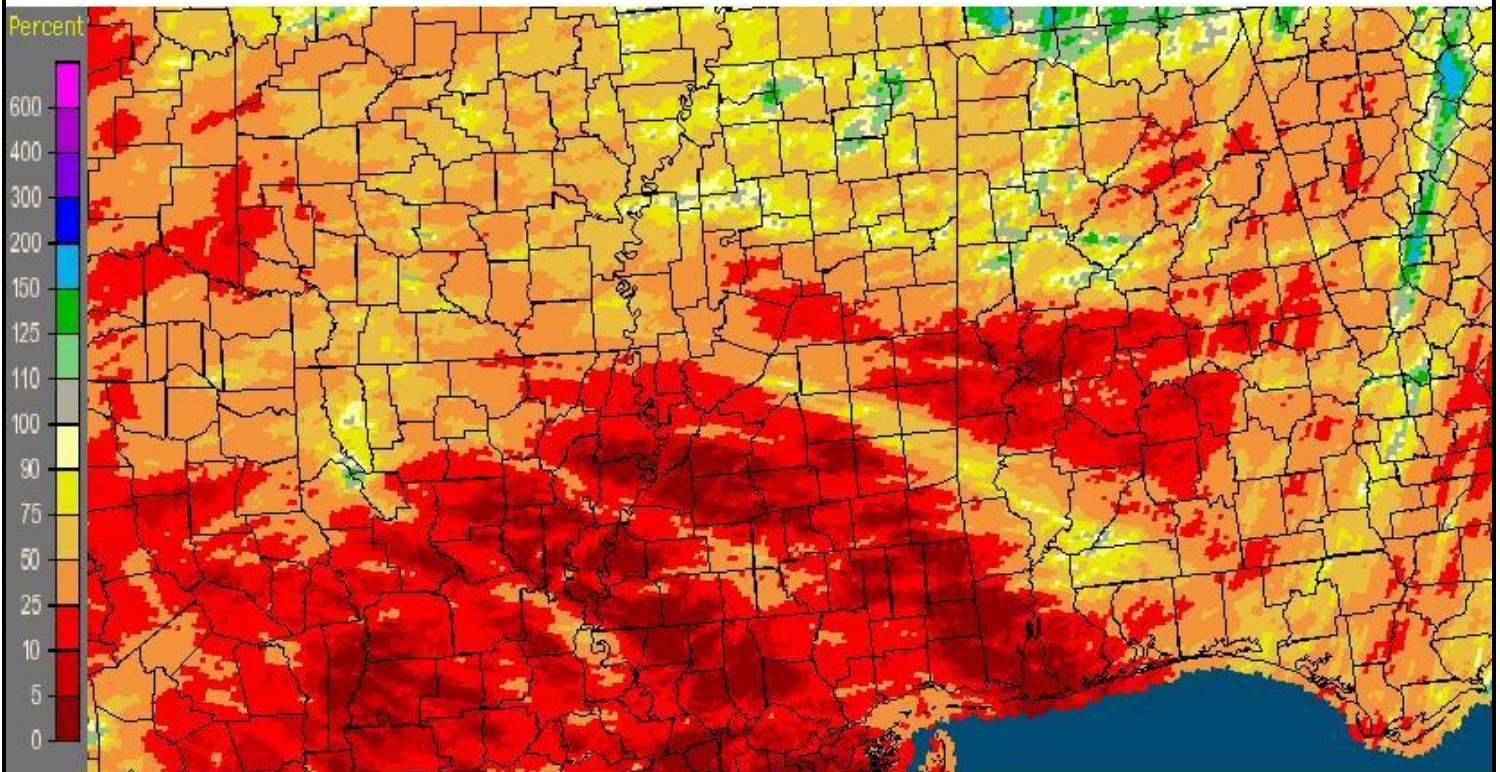
Note: Much of the above rainfall occurred from 7am until midnight on September 30th.

Mississippi: October, 2012 Monthly Observed Precipitation
Valid at 11/1/2012 1200 UTC- Created 11/3/12 21:37 UTC



October 2012 Rainfall Estimates

Mississippi: October, 2012 Monthly Percent of Normal Precipitation
Valid at 11/1/2012 1200 UTC- Created 11/3/12 21:40 UTC



September 2012 Percent of Normal Rainfall Estimates

Note: Observer rainfall and MPE may differ due to time differences.

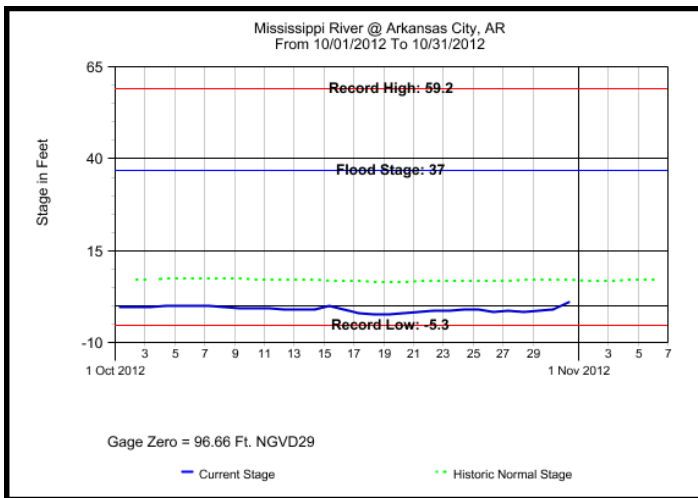
October rainfall for Selected Cities...

City (Airport)	October Rainfall	Departure from normal	2012 Rainfall	2012 Departure from Normal
Jackson, MS	1.05	-2.87	57.88	+13.65
Meridian, MS	2.61	-1.15	51.95	+5.81
Greenwood, MS	1.15	-2.72	35.38	-6.22
Greenville, MS	2.10	-2.22	35.23	-6.73
Hattiesburg, MS	0.10	-3.65	59.63	+9.64
Vicksburg, MS	0.71	-3.96	44.29	+0.16

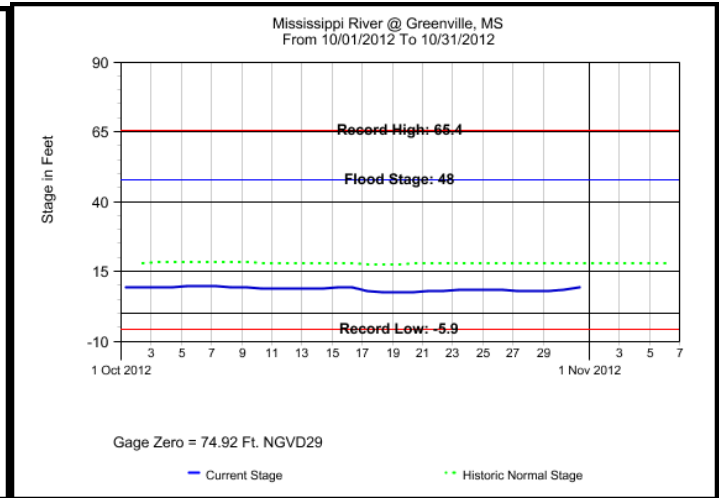
Mississippi River...

Mississippi River Plots for October, 2012

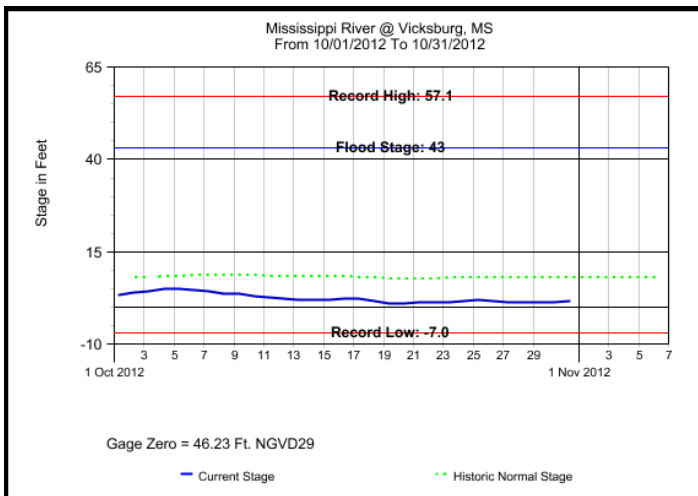
Plots Courtesy of the United States Army Corps of Engineers



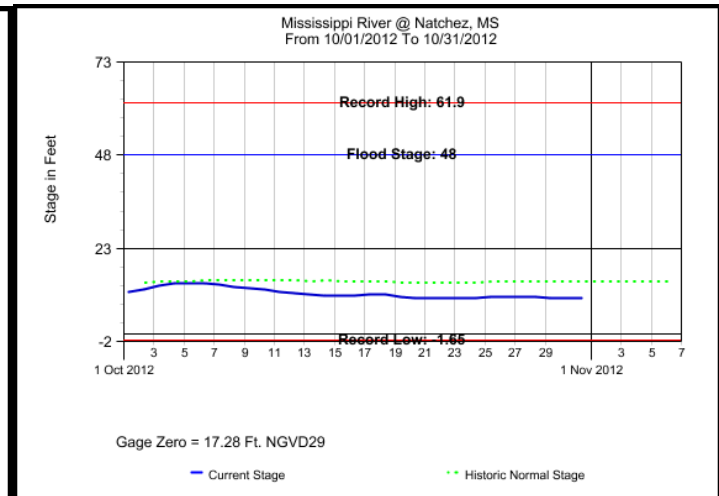
ARKANSAS CITY, AR



GREENVILLE, MS



VICKSBURG, MS



NATCHEZ, MS

Preliminary high and low stages for the month:

Location	FS	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City, AR	37	0.12	10/06/12	-2.35	10/19/12
Greenville, MS	48	9.73	10/06/12	7.41	10/19/12
Vicksburg, MS	43	4.85	10/04/12	0.93	10/20/12
Natchez, MS	48	13.75	10/05/12	9.43	10/21/12

Total Flood Warning products issued: 0
Total Flood Statement products issued: 0
Total Flood Advisories MS River : 0
Daily Climate and Ag WX Products (AGO'S) issued: 31
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31
Daily River and Lake Summary Products (RVD'S) issued: 31

Marty V. Pope

Service Hydrologist &
Latrice Maxie

Assistant Hydrologist/Observing Program Leader (OPL)

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District